The opinion in support of the decision being entered today was **not** written
for publication and is **not** binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOSEPH SUHADOLNIK,
CARMEN HENDRICKS,
and
ROGER MEUWLY

Appeal No. 1997-4311
Application No. 08/221,137

ON BRIEF

Before PAK, LIEBERMAN, and JEFFREY T. SMITH, Administrative Patent Judges.

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

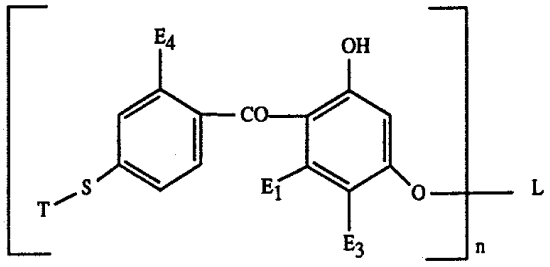
This is an appeal under 35 U.S.C. § 134 from the decision of the examiner

phenylthiobenzophenone.

THE CLAIM

Claims 1 is illustrative of appellants' invention and is reproduced below:

1. A compound of formula I



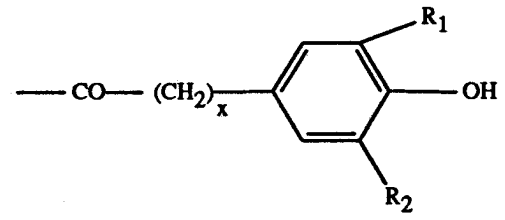
(I)

wherein

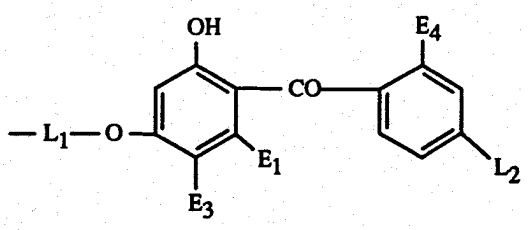
n is 1 to 4,

T is alkyl of 1 to 20 carbon atoms, alkyl of 2 to 12 carbon atoms substituted by hydroxyl, by alkoxy of 1 to 12 carbon atoms, by siloxysilyl group of formula IV, by alkanoyloxy of 2 to 12 carbon atoms, by alkenoyloxy of 3 to 12 carbon atoms or by halogen, alkenyl of 3 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, aryl of 6 to 10 carbon atoms or said aryl substituted by one or two alkyl of 1 to 4 carbon atoms or 1,1,2,2-tetrahydroperfluoroalkyl where the perfluoroalkyl moiety is of 6 to 16 carbon atoms,

carboxyl, by alkylcarbonyl of 2 to 20 carbon atoms, by alkenylcarbonyl of 3 to 18 carbon atoms, or by siloxysilyl group of formula IV, alkyl of 2 to 20 carbon atoms substituted by one or two hydroxyl, by alkoxy of 1 to 12 carbon atoms or by phenoxy, alkyl of 2 to 20 carbon atoms substituted by hydroxyl and by one alkoxy of 1 to 12 carbon atoms or by phenoxy, or alkyl of 2 to 20 carbon atoms substituted by alkanoyloxy of 2 to 20 carbon atoms or by alkenoyloxy of 3 to 20 carbon atoms, glycidyl, alkyl of 4 to 20 carbon atoms interrupted by one to six oxygen atoms, by one or two carbonyloxy or oxycarbonyl groups, or L is alkanoyl of 2 to 18 carbon atoms, alkenoyl of 3 to 18 carbon atoms, benzoyl, benzoyl substituted by one or two alkyl of 1 to 4 carbon atoms or a group of formula II or III



(II)



(III)

x is 0, 1 or 2,

R_1 is alkyl of 1 to 12 carbon atoms or cycloalkyl of 5 to 8 carbon atoms,

R_2 is sec- or tert-alkyl of 3 to 12 carbon atoms or cycloalkyl of 5 to 8 carbon atoms,

L_1 has the same meaning as L when n is 2,

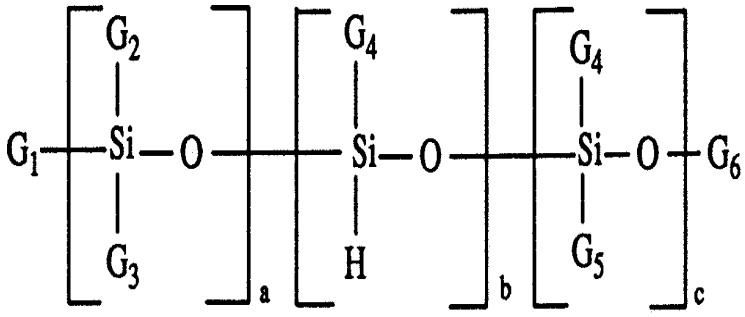
L_2 is hydrogen or alkyl of 1 to 18 carbon atoms,

when n is 2, L is straight or branched chain alkylene of 1 to 12 carbon atoms, alkylene of 3 to 12 carbon atoms substituted by hydroxyl, by alkoxy of 1 to 8 carbon atoms, by alkoxycarbonyl of 2 to 20 carbon atoms, by alkanoyloxy of 2 to 20 carbon atoms, by alkenoyloxy of 3 to 20 carbon atoms or by a siloxysilyl group of formula IV, or L is alkylene of 4 to 20 carbon atoms interrupted by one or two carbonyloxy or oxycarbonyl groups, alkylene of 4 to 20 carbon atoms interrupted by one to six oxygen atoms, o-xylylene, m-xylylene, p-xylylene, isophthaloyl, phthaloyl, terephthaloyl or α,ω-alkanedioyl of 4 to 12 carbon atoms,

when n is 3, L is straight or branched chain alkanetriyl of 3 to 12 carbon atoms, alkanetrioyl of 3 to 12 carbon atoms, trimellitoyl or alkanetriyl of 6 to 20 carbon atoms interrupted by three carbonyloxy or oxycarbonyl groups,

when n is 4, L is straight or branched chain alkanetetrayl of 4 to 16 carbon atoms, alkanetetroyl of 4 to 16 carbon atoms, pyromellitoyl or alkanetetrayl of 8 to 24 carbon atoms interrupted by four carbonyloxy or oxycarbonyl groups, and

where, when T or L is a group of formula IV,



(IV)

where

a is 1-50,
b is 0-50,
c is 0-50,
G_1 is hydroxyl, alkyl of 1 to 12 carbon atoms, alkoxy of 1 to 4 carbon atoms, cyclohexyl or -O-Si$(G_4)_3$,
G_2 is G_4 or -O-Si$(G_4)_3$,
G_3 is a direct bond or a bivalent group of the formula -C_nH_{2n}-, -$(CH_2)_n$O-, -$CH_2CH(OH)CH_2O$- or -$CH_2CH(OH)CH_2$-O-$(CH_2)_3$- where n is 1 to 4,

THE REFERENCES OF RECORD

As evidence of obviousness, the examiner relies upon the following references:

Dressler et al. (Dressler)	3,399,237	Aug. 27, 1968
Head et al. (Head)	3,431,306	Mar. 4, 1969
Avar et al.	4,029,684	Jun. 14, 1977

Joan Agranoff et al. (Eds.), 60 Modern Plastics Encyclopedia, No. 10A, pp. 174, 177 (McGraw-Hill, Inc., New York, NY, Oct. 1983) (Hereinafter referred to as Modern Plastics Encyclopedia (MPE)).

R. Gächter et al. (Eds.), Plastics Additives Handbook, pp. 176-79 (4th ed., Hanser/Gardner Publications, Inc., Cincinnati, OH, 1993) (Hereinafter referred to as Plastics Additives Handbook (PAH)).

THE REJECTIONS

Claims 1 through 13 stand rejected under 35 U.S.C. § 103 as being unpatentable over Head in view of Dressler, and further in view of the Plastic Additives Handbook (PAH) and Modern Plastics Encyclopedia (MPE).

Claims 1 through 13 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as being obvious over Avar.

OPINION

This appeal is related to Appeal No. 1997-3324, corresponding to application Serial No. 08/451,109, now before us for decision.

We have carefully considered all of the arguments advanced by the appellants and the examiner, and agree with the appellants that each of the rejections of claims 1 through 13 is not well founded. Accordingly, we reverse each of the rejections.

As an initial matter, we note that the examiner entered a requirement for restriction and a further election of species in the Office action dated September 19, 1994. In accordance with that requirement, the appellants elected to prosecute the invention of Group I, claims 1 through 13 and the ultimate species 2-hydroxy-4-octyloxy-4'-phenylthiobenzophenone. See the Amendment received October 17, 1994. In accordance with the above-mentioned election, the opinion below is directed exclusively to the aforementioned elected species.

"[T]he examiner bears the initial burden, on review of the prior art or on any other

The Rejection Over Head in View of Dressler and Others

On the record before us, the examiner relies upon a combination of four references to reject the claimed subject matter and establish a prima facie case of obviousness.

We find that Head is directed to benzophenone derivatives. See column 1, lines 56-57. The derivatives are substituted on at least one, and preferably on only one, benzene ring by a sulfone grouping of the general formula SO_2CH_2CHEA. See column 2, lines 20-25. A general benzophenone grouping is disclosed which contains an alkoxy group on the 4 position and a hydroxy group on the 2 position in the first benzene ring. The sulfone group moiety is present on the second benzene ring. See column 3, lines 3-9. In addition, Example 7 is directed to 2-hydroxy-4-methoxy-4'-(beta-chloroethyl-sulphonyl) benzophenone. Head does not disclose or suggest a phenyl thioether moiety substituted on the benzophenone.

It is the examiner's position that Dressler discloses phenylthioethers on the

characterized as two benzophenone moieties bridged in the 5 position by a sulfide moiety. Each component has a resorcinol grouping of two hydroxy groups in the 2 and 4 positions respectively. Id. In our view the thio linked benzophenone is not equivalent to the thio phenyl group of the claimed subject matter.

It is the examiner's position that it would have been prima facie obvious to have modified the compound of Head by substituting a thioether as taught by Dressler for the sulfonyl substituent taught by Head. The examiner's position is based on the statement that there is motivation to substitute a thioether as it is well known to be more of an electron donor than any type of sulfonyl. See Answer, page 6. However, even if the examiner were correct in the motivational statement for substituting a thioether group for a sulfonyl group, we determine that there is no suggestion in either Head or Dressler to substitute a thioether group for a sulfonyl group.

The dispositive issue in the rejection under § 103 is whether a person having ordinary skill in the art would have found a suggestion in the teachings of Head or Dressler to utilize the thiosulfide linkage disclosed in the benzophenone derivative of Dressler, as the

Based upon our findings, supra, we conclude that there is no suggestion in either Head or Dressler to substitute benzophenone with the requisite thio phenyl moiety of the claimed subject matter.

Based upon the above analysis, we conclude that the combined teachings of Head, Dressler, with Plastic Additives Handbook (PAH) and Modern Plastics Encyclopedia (MPE) are insufficient to establish a prima facie case of obviousness.

The Rejections Over Avar

We find that Avar is directed to derivatives of 2-hydroxy benzophenone. See column 1, lines 13-22. The derivatives contain substituents Y_1, Y_2, Z_1, and Z_2 wherein the Y components each have independently the significance of the Z components or constitutes a tertiary alkyl hydroxy benzoyl moiety. See column 1, line 13 to column 2, line 66. Furthermore, the substituents Y_1 and Y_2 preferably occupy the 4 or 4' position on the benzophenone nucleus. See column 5, lines 36-40. It is the examiner's position that the claimed subject matter may be obtained by choosing among the many components disclosed by Avar so as to obtain the requisite elected specie. See Answer, page 8. We

moiety. Accordingly, the reference to Avar can neither anticipate nor make obvious the species of the claimed subject matter. Similarly, the combination of Avar with Head and Plastic Additives Handbook (PAH) is likewise insufficient to establish a prima facie case of obviousness.

Based upon the above analysis, we have determined that the examiner's legal conclusion of anticipation and obviousness is not supported by the facts. "Where the legal conclusion is not supported by [the] facts it cannot stand." In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967).

DECISION

The rejection of claims 1 through 13 under 35 U.S.C. § 103 as being unpatentable over Head in view of Dressler, and further in view of the Plastic Additives Handbook (PAH) and Modern Plastics Encyclopedia (MPE) is reversed.

The rejection of claims 1 through 13 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as being obvious over Avar is reversed.

The rejection of claims 1 through 13 under 35 U.S.C. § 103 as being

reversed.

The decision of the examiner is reversed.

REVERSED

CHUNG K. PAK Administrative Patent Judge	)	
PAUL LIEBERMAN Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES

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